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P07018-0

Rick Von Pein
Waste Management
Director of Engineering, Western Group
6640 Amber Lane
Pleasanton, CA 94566

Subject: Amendment No. 7 Proposal- WGS�- Lower HOBAS Pipeline and Stilling Basin- Final Design, Bid and Construction Services

Dear Rick,

We are pleased to submit our proposal for finalizing the design to 100 percent, bid document preparation and construction services associated with the lower HOBAS and stilling basin segments of the Western Surface Water Drainage (WSWD) Project.

Introduction

In early 2010, a value engineering assessment of the proposed lower HOBAS alignment between Stations 0+00 to 18+45 was performed to avoid construction encroachment of existing site features, property lines, and to reduce excavation and pipe installation costs. A final option was selected where the HOBAS pipe will be placed to the east in the existing drainage channel alignment (in-channel alignment) from Station 18+45 to approximate downstream Station 9+25. South of Station 9+25, the pipe will exit the existing channel and proceed via a route to the stilling basin in a manner similar to the original proposed alignment developed in 2009.

The lower HOBAS alignment and stilling basin area requires updates to the construction drawings in order to show 1) the new alignment profile in the existing channel from Station 18+45 to 9+25; 2) trench cross section and backfill configurations for the 84" HOBAS and adjacent 36" HDPE storm water conveyance pipe in the existing channel; 3) headwall details at the location where the 36" HDPE pipe exits into the existing channel; and 4) a cross section showing the HOBAS pipe trench and backfill configuration near the existing sedimentation basin (i.e. near HOBAS Station 1+00).

The finalization of the construction drawings for the lower HOBAS alignment and stilling basin was placed on hold until the City and County of Honolulu (CCH) could review and

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approve the lower HOBAS design, including the 2010 realignment. In the fall of 2010, approval was granted by the CCH, and the design proceeded to approximately a 75 percent design level. The lower HOBAS alignment from Station 0+00 to 18+45 will now require drawing updates to final the design. There may also be modifications to the stilling basin configuration and details based on review comments from Waste Management or the CCH as the design proceeds to the 100 percent level.

We understand that construction of the lower HOBAS alignment and stilling basin will need to be competitively bid, since the CCH is now funding the construction costs for this segment of the WSWD project. In order to bid the work for the lower HOBAS alignment and stilling basin, a bid package containing finalized construction plans, specifications and Engineer's estimates will need to be prepared. Design services support during bidding and construction will also be required, including responses to bidder questions, contractor requests for information, submittal reviews, and limited field visits to the project site.

Scope of Services

Based on consideration of the current project status discussed above, GEI recommends that the scope be accomplished in Tasks 1021 and 1022 outlined as follows to prepare contract documents and provide design services during construction for the lower HOBAS alignment and stilling basin.

Task 1021 Final Design and Bid Services

Bid Level Construction Drawings

GEI will update the current 75 percent design level drawings to 100 percent (bid level). The update will include review and incorporation of comments from Waste Management and the CCH at the 90 percent design level. We anticipate that eight or nine drawings will be necessary for construction of the lower HOBAS alignment between Station 0+00 and 18+45 and the stilling basin structure.

Specifications

GEI will prepare the necessary Division 2 and 3 Specifications (i.e. technical specifications) in conjunction with the construction drawings. GEI will provide Division 2 and 3 specifications at the 90 percent design level for review and comment by Waste Management. GEI will incorporate WM's comments and edits into a final specification set used for the bid documents.

GEI will also review the Waste Management's General Requirements (Division 0 and 1) portion of the specifications, and provide redline markups and comments for discussion with Waste Management at the 90 percent design level. The Division 0 and 1 specifications will be finalized after resolution of comments between GEI and Waste Management.

Engineer's Estimates

GEI will prepare estimated quantities and provide opinions of probable costs as necessary to assist Waste Management with budgeting of construction level costs for inclusion in the bid documents.

Bid Services

GEI will assist Waste Management during the bidding period and provide responses to Bidder's questions. An Addenda package (if deemed necessary) will be prepared to address Bidder's questions.

Deliverables

- Electronic pdf copies of the design drawings, specifications and Engineer's estimate at the 90 percent design level will be sent to Waste Management and the CCH for review and comment.
- The 100 percent design package (issued for bid) including drawings, Specifications (with Engineer's cost opinion and quantities) will be sent to Waste Management in electronic and hard copy formats. Electronic versions of the construction drawings and specifications will consist of a fully assembled .pdf document.
- Written responses to questions from bidders will be prepared in a pdf format. The Addenda package (if necessary) will be prepared in hard copy and .pdf formats.

Assumptions

- Waste Management will remain the client point of contact to GEI for this work scope, deliverables and billings. Any correspondence with the CCH will be coordinated by Waste Management.
- The Division 0 and 1 Specifications will be provided by Waste Management for review and incorporation by GEI into the bid documents.
- There will be one round of edits and comment incorporation between GEI and Waste Management to bring the 90 percent level plans, specifications and Engineer's quantities/ cost opinions to the issued for bid level.
- One electronic package of the documents will be delivered to Waste Management at the 90 percent level and the issued for bid level as described above.

- Up to Fifteen hard copies of the bid package including full size drawings and bound specifications will be sent to Waste Management for distribution to internal files, the CCH, HDOH, and prospective bidders.
- One addenda package will be prepared, if necessary, to address Bidder's questions and comments. If necessary, there will be up to 15 hard copies of the addenda package sent to Waste Management for distribution to appropriate recipients.
- Any modifications to the stilling basin design will not include significant changes to the basin footprint layout or improvements to the culverts entrance beneath Farrington Highway.

Task 1022-Design Services during Construction

GEI will provide design services during construction including submittal reviews, responses to contractor RFI's and up to two site visits to observe the construction of the lower HOBAS alignment and stilling basin facilities.

Deliverables:

- Responses to contractor RFI's, submittal reviews and preparation of trip reports during site visits will be distributed electronically in a pdf format to the appropriate recipients.

Assumptions:

- Waste Management will remain the client point of contact to GEI for this work scope, deliverables and billings. Correspondences with the CCH will be coordinated by Waste Management.
- During construction, the average amount of labor effort, including site visits will be equivalent to approximately 1/2 of a person month (level of effort 0.5 personnel month / month) of senior engineering support over an estimated 3 months construction duration.
- On-site CQA activities and documentation will be performed by a qualified local firm under a separate agreement.
- Services during construction do not include preparation of as-builts or supporting post-construction operation and maintenance documents for the WSWD system. (GEI recommends preparation of as-builts of the western diversion system and an operations and maintenance manual at the completion of the project construction).

Project Team

The personnel roles for this Project will continue for the 2011 construction year. The GEI Team Project Manager will be William Rettberg, P.E. and key personnel included in the Project Team from the Oakland office will be Aydin Tlabar, Senior Hydraulic Structures Engineer; Len Sansone, Senior Geotechnical Engineer and Project Engineer, Charles Anderson, Assistant Project Engineer.

Project Schedule and Engineering Costs

The estimated total budget to complete the aforementioned services for the WSWD system is about \$ 81,555 as presented in the attached estimate. The total budget includes \$46,553 to update the design to bid level and provide services during the bid phase, and \$35,002 for 3months of design services support during construction. Upon authorization to proceed, GEI can provide a 90% package within 4 to 6 weeks after the notice to proceed; and a 100% package within 3 weeks after we receive final comments and responses from Waste Management regarding the 90 percent submittal.

Closing

The GEI Team is pleased to continue assist WM during design and construction of this important facility.

Very truly yours,
GEI Consultants, Inc.



William A. Rettberg, P.E.
Vice President

Attachment A: Cost Estimate

Attachment A

Lower HOBAS Pipeline and Stilling Basin Design Services- Final Design, Bid and Construction Support Services

TABLE 1 - Estimated Person Hours & Costs- Final Design and Bid Services- Task 1021						Notes
Key Personnel	Role	Rate \$/hr	Task 1015-1018 Design Drawings	Total Hours	Total Labor Cost \$	
William Rettberg	PM	206	24	24	4,944	Project Management and Q/C review
Len Sansone	Assistant PM	183	80	80	14,640	Assistant Project Management
Aydin Tiabar	Hydraulic struct	183	40	40	7,320	Updates to 9 Drawings
Charles Anderson	Geotech/civil	131	80	80	10,480	Updates to 9 Drawings, Specification Preparation, and Preparation of Engineer's Quantities and Cost Estimate
CADD		102	36	36	3,672	9 drawings at 4 hours per drawing
Other Personnel	Admin	82	40	40	3,280	
Total Hours			300	300	44,336	
Other Direct Costs			\$	\$	2,217	@5% of Labor
Total			\$	\$	46,553	

1. See proposal text for listed assumptions that accompany this budget estimate

2. The billing rates shown in Table 1 reflect a 5 percent increase over current 2010 billing rates.

The 5 percent adjustment accounts for increases in the consumer price index since 2006, when the current billing rates were established for the project.

Attachment A

Lower HOBAS Pipeline and Stilling Basin Design Services- Final Design, Bid and Construction Support Services

TABLE 2- Estimated Person Hours & Costs- Services During Construction- Task 1022					
Key Personnel	Role	Rate \$/hr	Services During Construction	Total Hours	Total Labor Cost \$
William Reitberg	PM	206	20	20	4,120
Len Sansone	Assistant PM	183	72	72	13,176
Aydin Tiabar	Hydraulic struct.	183	32	32	5,856
Charles Anderson	Geotech/civil	131	48	48	6,288
CADD					
		102	16	16	1,632
Other Personnel	Admin	82	20	20	1,640
Total Hours				208	32,712
Other Direct Costs					
Total		\$	-	\$	35,002

1. An estimated two site visits will be conducted by the PM or Assistant PM requiring a one to two night hotel stay.
2. Estimated labor is based on an average of 1/2 of a personnel month of effort on a monthly basis during an estimated 3-month construction duration in 2011.
3. The billing rates shown in Table 2 reflect a 5 percent increase over current 2010 billing rates.

The 5 percent adjustment accounts for increases in the consumer price index since 2006, when the current billing rates were established for the project.